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SEP 1 3 1999

CARMEL RIVER STEELHEAD ASSOCIATION
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September 22, 1999

Mr. Rick Breitenbach
CALFED Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

Re: Comments on the Draft Programmatic EIS/EIR
CALFED Bay-Delta Program

Mr. Breitenbach,

It appears that much too much credit is given the restoration of the lower river and delta habitat as it pertains to steelhead. Steelhead spend the vast majority of their life in the cool shallow headwater creeks and in the ocean. The time they spend in these habitats is measured in years. The time they spend in the lower rivers and delta is measured in hours or days. It is not true that extensive wetland and riparian habitat improvement will significantly increase the steelhead population. The big problem is restoring their access to their essential headwater environments and safe access to the ocean. Removal of, or passage over dams is essential. It was mentioned that passage around dams has not worked well on the Colombia. The Colombia has as many as 8 major dam to navigate. Steelhead on the central valley stream usually have only one or two dams to deal with. Fish ladders can and do work in California. The Carmel River has an 85 foot tall dam that has been passing fish since 1921. Borland lifts pass fish in Europe. Trap and truck passage can also be a solution albeit a poor one. It must be remembered that smolts also have to be trapped and trucks down passed most dams.

If you insist on abandoning the ecosystem approach to steelhead restoration you have to create headwater type environments below the dams. This means cool water all year every year. Either a large thermal works like Shasta or at least a syphon that would create a plume of cool water refuge below each and every dam. To simulate headwater conditions steelhead need clean gravel tailouts with very few egg and alevin predatory fish and birds. Shallow riffles and edge water habitat must be provided for young steelhead to safely rear. Of course juvenile steelhead need the appropriate feast of invertebrates. It would be much better and more effective to provide access to the headwaters.

To better understand the stress on the other major steelhead habitat CALFED needs to encourage and fund studies on "ocean conditions" especially the effects of high seas gill nets (drifts nets) on steelhead. You realize of course that steelhead from North America intermix and some have been caught in site of land in Russian waters. These high seas catches have included 11 fish from California streams including the Central Valley.

Another major problem poorly explored by the draft document is the South Delta pumps. Millions of salmon, steelhead, smelt, shad, stripped bass and lamprey are lost directly and indirectly to these pumps every year. During the drought years close to total populations of anadromous fish were lost to these pumps which are powerful enough to reverse the flow of the river. It appears that influence from the San Joaquin Valley and Southern California have prevented a reassessment of these diversions in the CALFED process. This is unreasonable and an unacceptable action by professionals. The blame for the problem

these diversions have caused should be brought to the attention of the public. A solution has to be found. If not the next drought will undo any good CALFED has done elsewhere

Here are some possible solutions other than the obvious of not diverting so much water

- Spread the diversions over the delta. Do not divert more than 5 to 10 % of the passing flow from any one point

- Divert only from the surface by using a hypalon curtain to force diversions from the top most 12 inches of the water column

- Divert during daylight hours. Steelhead and many other anadromous species migrate mostly during periods of low light

- Divert in spurts. That is stop and start diversions so that the current going toward the ocean is the only constant current.

- Divert and store during winter and peak flows in the spring. Fill San Luis Reservoir early

- Avoid diverting during peak smolt migrations times, ie. new moons in spring and fall

Water conservation should be mandatory.

- Flowing water as well as the conveyance system belong to the people of the State.

- The wasteful use of water should not be tolerated.

- Land with high salt content should not be allowed to be washed with the peoples water.

- Irrigation ditches should be required to be lined and maintained.

- Irrigation should be allowed only at night to save on evaporation.

- The price of water should be much higher which will cause users to find more ways to conserve

- The transfer and sale of the States given water rights should be banned.

- Water wasters should be fined or loose water rights.

- Drip irrigation should be required on crops that are suitable, grapes are one example.

- The delta islands should be allow to be flooded instead of repairing dikes at great expense. The water could then be pumped out to supply agricultural use.

A real balance between fish and wildlife and urban and ag use needs to occur The public trust needs real support from the responsible government politicians and managers. The environment should not have to live on leftovers and waste water. It should get the water it needs when it needs it. Never again should the boast of the water purveyors be that they met all their contracts during the worst drought in California history. In so doing they caused the Sacramento and San Joaquin Rivers to reverse their flow. When there

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are shortage all users should conserve not just the environment.

The proposed goals, visions, long and short term objectives, even if perfectly executed, will not result in delisting steelhead unless a way is found to get them to the headwaters and back again and passed the destructive delta pumps.

The stated target for adult steelhead return both wild and hatchery produced is far too low. The Sacramento and the San Joaquin River system is second only to the Columbia in size on the west coast. Steelhead were not as valuable to canneries as salmon and their runs were more diverse in timing and they are hard to catch. For these reasons there appears to be no good pre dam record of their abundance. It would seem reasonable to use the Klamath, Columbia, and the Eel as comparable river systems to determine the number of steelhead present in the pre dam era.

In order to meet the goal of a self sustaining steelhead population in every stream that supported steelhead populations and contain suitable habitat, virtually every headwater perennial stream and river needs to be restored. Rainbow and golden trout have been and are still are found in these streams. That means not only did steelhead heve access to them but that suitable steelhead habitat still remains since the have virtually the same spawning and fresh water rearing requirements. This means restoration of the whole San Joaquin system. Even the intermittently accessible rivers such as the Kern need a steelhead restoration program.

Considering the historic adult steelhead population were probability one million or more, the goal of at least 25 % , (250,000 adult fish) would be appropriate. This may never be obtained unless access around dams and a way to get smolts passed the pumps and diverstons is found.

The goal of screening as diversions and pumps is obvious. It is equally important that the screens actually work. That is the design and implementation is such that fish are not only not lost or damaged at the diversion but are not attacked by predators or delayed in their migration. Delay in migration can be fatal.

In restoration of steelhead populations the food web on which the depend at all life stages has to be considered.. The failure of spawning channels to boost populations as well as other efforts below dams can be traced to differences in quality and quantity of food items for young fish. Water, cool or not, draining from the bottom of a reservoir does not contain the same detritus or invertebrates as the water traveling through a natural riffle of a natural stream. If populations are to be restored below dams artificial feeding with appropriate sized food stuffs may be necessary to support naturally spawned populations.

In the headwaters situations the speed of the current, nature of the substrate, and the temperature of the water does not favor many of the predators of steelhead that are found below dams. If restoration is to take place below dams all forms of predators need to be managed. Do not think that temporary cool water is enough to control the myriad of predatory fish and birds in the lower river but not found in the headwaters where steelhead evolved.

If CALFED is serious about restoring steelhead a new start is required. To paraphrase Albert Einstein, you cannot solve a problem with the same thinking that created the problem in the first place.

Sincerely,

Roy L. Thomas, President